

# Multi-Channel (5) PMIC for Automotive Applications: 3 LVBUCK and 2 LDO, Fit for ASIL B Safety Level

## **PF51x3**

#### Preproduction

This page contains information on a preproduction product. Specifications and information herein are subject to change without notice. For additional information please contact your sales representative.

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The PF51x3 is a multi-channel PMIC device designed to be used for automotive safety and industrial applications. The PF51x3 is configurable, making it a great companion and fit for various system-level power requirements.

Integrated safety features ensure compliance with the ISO 26262 standard and the ASIL B functional safety level. The PF51x3 is available as a standard non-safety device for applications that don't require ISO 26262 compliance.

The PF51x3 is suitable for applications that require multiple power supplies, including infotainment, ADAS, vision, and radar, as a companion to another PMIC or SBC, such as one from the FS8x family.

The PF5113 is suitable for NXP radar system solutions, including S32R41, TEF82xx and SAF85xx.

## PF5103 Block Diagram

## PF5103 P GOOD output pin **BUCK1** (Single/multi) (0.5 V TO 3.3 V, 3.5 A) INTB output pin/ Reset input pin **BUCK2** (Single/multi) Logic CLOCK SYNC input pin/ and Control (0.5 V TO 3.3 V, 3.5 A) Standby input pin XFAIL B bidirectional pin/ $I^2C$ FCCU input pin MCU Interface **BUCK3** (Single/multi) Regulator Control (0.5 V TO 3.3 V, 3.5 A) Fault Detection Manual Frequency Tuning/ Functional Safety Frequency Spread-Spectrum (ABIST, Watchdog) LDO1 (Triangular/Pseudo-Random) (0.75 V or 3.3 V, 0.2 A) One Time Programmable Memory (OTP) LDO2 (0.75 V or 3.3 V, 0.5 A) **OV/UV Monitoring**

### PF5113 BUCK1 (Single) P GOOD output pin (0.8 V, 0.825 V, 0.9 V or 1.2 V, 2.6 A) INTB output pin/ Reset input pin BUCK2 (Single) Logic CLOCK SYNC input pin/ (1.3 V, 1.5 V, 1.8 V, 2.3 V and Control Standby input pin 2.5 V or 3.3 V, 3.5 A) XFAIL B bidirectional pin/ $I^2C$ **BUCK3** (Single) FCCU input pin MCU Interface (1.1 V, 1.3 V, 1.5 V, 2.5 V Regulator Control or 3.3 V, 2.6 A) Fault Detection Manual Frequency Tuning/ **Functional Safety** Frequency Spread-Spectrum (ABIST, Watchdog) (Triangular/Pseudo-Random) LD01 (1.8 V or 3.3 V, 0.2 A) One Time Programmable Memory (OTP) LDO2 **OV/UV** Monitoring (1.8 V or 3.3 V, 0.25 A)

# PF5123 P GOOD output pin **BUCK1** (Single/multi) INTB output pin/ (0.5 V to 3.3 V, 3.5 A) RSTB input pin Logic CLOCK SYNC input pin/ and Control Standby input pin XFAIL B bidirectional pin/ I<sup>2</sup>C FCCU input pin MCU Interface BUCK2 (Single/multi) Regulator Control (0.5 V to 3.3 V, 3.5 A) Fault Detection Manual Frequency Tuning/ **Functional Safety** Frequency Spread-Spectrum (ABIST, Watchdog) (Triangular/Pseudo-Random) One Time Programmable **BUCK3** (Single/multi) Memory (OTP) (0.5 V to 3.3 V, 3.5 A) **OV/UV Monitoring**

View additional information for Multi-Channel (5) PMIC for Automotive Applications: 3 LVBUCK and 2 LDO, Fit for ASIL B Safety Level.

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